

## REMARKS

Claims 1-21 remain pending in the application. Reconsideration is respectfully requested in light of the following remarks.

### Section 102(e) and 103(a) Rejections:

The Office Action rejected claims 1-6, 8-13 and 15-20 under 35 U.S.C. § 102(e) as being anticipated by Mathews et al. (U.S. Patent No. 6,678,815) (hereinafter, "Mathews"). The Office Action rejected claims 7, 14 and 21 under 35 U.S.C. § 103(a) as being unpatentable over Mathews in view of Nogami (U.S. Patent No. 5,860,145) (hereinafter, "Nogami"). Applicants traverse these rejections and submit that claims 1-21 are distinguishable over the cited references, as set forth in greater detail below.

With reference to claim 1, Mathews fails to teach or suggest all of the limitations of Applicants' claim. Specifically, Mathews fails to teach or suggest a method including generating a next virtual fetch address corresponding to an instruction fetch request; determining whether a current physical address translation is valid for the next virtual fetch address in response to the generating, where the determining comprises detecting a change in the virtual page number of the next virtual fetch address relative to a virtual page number of a current virtual fetch address; activating an ITLB circuit in response to determining that the current physical address translation is not valid for the next virtual fetch address; and performing the instruction fetch using the current physical address translation without activating the ITLB circuit in response to determining that the current physical address translation is valid for the next virtual fetch address.

The Examiner relies on Mathews, col. 3, lines 10-15 to teach the limitation of generating a next virtual fetch address and on Mathews, col. 4, lines 19-56 to teach the remaining limitations of claim 1. However, neither these nor any other portions of Mathews disclose the features of claim 1 in their claimed arrangement. Mathews specifically discloses the comparison of "the current instruction fetch address with: a

page boundary minus the largest instruction fetch size.” (col. 5, lines 1-3, emphasis added) In response to this comparison, Mathews generates a TLB disable signal, as shown in FIG. 3 and described at col. 4, lines 11-40.

However, performing a comparison on a current instruction fetch address to generate a TLB disable signal is not the same as, nor does it suggest, generating a next virtual fetch address and, in response to this generating, determining whether a current physical address translation is valid for the next virtual fetch address. Mathews generally describes that one function of his instruction fetch unit is “to generate addresses of instructions to be fetched.” (col. 3, lines 11-12) However, Mathews’ subsequent description of comparison of a current fetch address to various quantities has nothing to do with generation of a next virtual fetch address and making determinations with respect to the generated next virtual fetch address, as required by claim 1.

Moreover, comparing a current instruction fetch address with a page boundary minus the largest instruction fetch size is neither identical to nor suggestive of determining whether a current physical address translation is valid for a generated next virtual fetch address, where the determining comprises detecting a change in the virtual page number of the next virtual fetch address relative to a virtual page number of a current virtual fetch address. Quite simply, Mathews’ technique has nothing to do with detecting a change in a virtual page number of a next virtual fetch address relative to a virtual page number of a current virtual fetch address. As noted above, Mathews does not generate a next virtual fetch address and responsively determine the validity of a current physical address translation to the generated address. Further, the comparison Mathews describes simply does not amount to detecting a change in a virtual page number, but rather determining whether a current instruction fetch address is less than a particular quantity.

In short, Mathews operates according to different principles in an entirely different fashion than set forth in the limitations of claim 1. Applicants note that anticipation requires the presence in a single prior art reference disclosure of each and

every element of the claimed invention, arranged as in the claim. M.P.E.P 2131; *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 221 USPQ 481, 485 (Fed. Cir. 1984). The identical invention must be shown in as complete detail as is contained in the claims. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). As Mathews clearly fails to meet this standard, Mathews fails to anticipate claim 1.

A similar argument applies to independent claims 8 and 15, each reciting limitations similar to claim 1. Thus, Applicants submit that independent claims 1, 8 and 15 are distinguishable over Mathews. Applicants further submit that while numerous ones of the dependent claims recite further distinctions over the cited references, the dependent claims are distinguishable by virtue of their dependence from distinguishable independent claims, and no further discussion of the dependent claims is necessary at this time.

## CONCLUSION

Applicants submit the application is in condition for allowance, and notice to that effect is respectfully requested.

If any extension of time (under 37 C.F.R. § 1.136) is necessary to prevent the above referenced application from becoming abandoned, Applicants hereby petition for such extension. If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5500-97300/BNK.

Also enclosed herewith are the following items:

- ☒ Return Receipt Postcard
- ☐ Petition for Extension of Time
- ☐ Request for Approval of Drawing Changes
- ☐ Notice of Change of Address
- ☐ Marked-up Copy of Amended Claims
- ☐ Marked-up Copy of Amended Paragraphs
- ☐ Fee Authorization Form authorizing a deposit account debit in the amount of \$  
for fees (      ).
- ☐ Other:

Respectfully submitted,



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